

**DECLARATION OF JOINT INVENTORS FOR PATENT APPLICATION**

As the below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled "Method of Forming a Non-Volatile Resistance Variable Device, and Non-Volatile Resistance Variable Device", the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

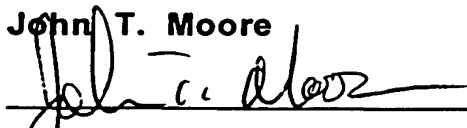
**PRIOR FOREIGN APPLICATIONS:**

I hereby state that no applications for foreign patents or inventor's certificates have been filed prior to the date of execution of this declaration.


I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

Code and that such willful false statement may jeopardize the validity of the application or any patent issued therefrom.

\* \* \* \* \*

Full name of inventor: **John T. Moore**  
Inventor's Signature:   
Date: 2-16-01  
Residence: **Boise, Idaho**  
Citizenship: **United States of America**  
Post Office Address: **12530 West Lexus Court  
Boise, ID 83713**

\* \* \* \* \*

Full name of inventor: **Terry L. Gilton**  
Inventor's Signature:   
Date: 2/16/01  
Residence: **Boise, Idaho**  
Citizenship: **United States of America**  
Post Office Address: **3149 East Nature Drive  
Boise, ID 83706**

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. . . . . Unknown  
 Filing Date . . . . . Filed Herewith  
 Inventor . . . . . John T. Moore et al.  
 Assignee . . . . . Micron Technology, Inc.  
 Group Art Unit . . . . . Unknown  
 Examiner . . . . . Unknown  
 Attorney's Docket No. . . . . MI22-1527  
 Title: Method of Forming a Non-Volatile Resistance Variable Device, and Non-Volatile Resistance Variable Device

**POWER OF ATTORNEY BY ASSIGNEE AND**  
**CERTIFICATE BY ASSIGNEE UNDER 37 CFR § 3.73(b)**

To: Assistant Commissioner for Patents  
 Washington, D.C. 20231

Sir:

**MICRON TECHNOLOGY, INC.**, the Assignee of the entire right, title and interest in the above-identified patent application by assignment attached hereto, hereby appoints the attorneys and agents of the firm of WELLS, ST. JOHN, ROBERTS, GREGORY & MATKIN P.S., listed as follows:

David P. Roberts	Reg. No. 23,032
Randy A. Gregory	Reg. No. 30,386
Mark S. Matkin	Reg. No. 32,268
James L. Price	Reg. No. 27,376
Deepak Malhotra	Reg. No. 33,560
Mark W. Hendricksen	Reg. No. 32,356
George G. Grigel	Reg. No. 31,166
Keith D. Grzelak	Reg. No. 37,144
David G. Latwesen	Reg. No. 38,533
James D. Shaurette	Reg. No. 39,833
Frederick M. Fliegel	Reg. No. 36,138
D. Brent Kenady	Reg. No. 40,045
James E. Lake	Reg. No. 44,854
Bernard Berman	Reg. No. 37,279

and also attorneys Michael L. Lynch (Reg. No. 30,871) and Lia Pappas Dennison (Reg. No. 34,095) of Micron Technology, Inc., as its attorneys with full power of substitution to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

The Assignee certifies that the above-identified Assignment has been reviewed and to the best of Assignee's knowledge and belief, title is in the Assignee, and a copy of the Assignment is submitted herewith.

Please direct all correspondence regarding this application to:

Customer No. 021567  
WELLS, ST. JOHN, ROBERTS, GREGORY & MATKIN P.S.  
Attn: Mark S. Matkin  
601 West First Avenue, Suite 1300  
Spokane, WA 99201-3828

Telephone: (509) 624-4276  
Facsimile: (509) 838-3424

MICRON TECHNOLOGY, INC.

Dated: 2-20-01

By: 

Name: Michael L. Lynch, Esq.  
Title: Chief Patent Counsel

*Attachments: Copy of Assignment; Copy of Board of Directors' Resolution*

**MICRON TECHNOLOGY, INC.  
CERTIFIED COPY OF RESOLUTIONS**

I, Jan R. Reimer, the Assistant Secretary of Micron Technology, Inc. do hereby certify, that the resolutions attached hereto represent a complete, true and correct copy of the resolutions duly adopted by the Board of Directors of Micron Technology, Inc., a corporation duly organized and existing under the laws of the State of Delaware, at a meeting duly held on March 25, 1996, a quorum being present, and have been entered into the minutes of said meeting; that I am the keeper of the corporate seal and of the minutes and records of this Corporation; and that the said resolutions have not been rescinded or modified.

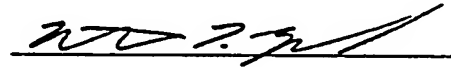
The resolutions attached hereto are in conformity with the Articles of Incorporation and Bylaws of the Corporation and are now in full force and effect.

I further certify that the person whose name and signature is set out below is the person authorized to act for said corporation in transactions with and pursuant to the foregoing resolutions, and that such person is now duly qualified and acting in his respective capacity:

NAME AND TITLE

SIGNATURE

Michael L. Lynch, Assistant General  
Counsel for Intellectual Property



IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of the said corporation, this 16th day of May, 1996.

  
Jan R. Reimer, Assistant Secretary

(SEAL)

**MICRON TECHNOLOGY, INC.  
BOARD OF DIRECTORS RESOLUTIONS**

WHEREAS, certain key employees require the authority to execute certain documents on behalf of the Company in order to enable them to effectively and efficiently carry out their responsibilities and duties to the Company.

NOW THEREFORE BE IT RESOLVED, that the Board hereby approves and authorizes Mr. Michael L. Lynch, Assistant General Counsel for Intellectual Property, to execute on behalf of the Company, documents pertaining to the Company's patent prosecution matters, including but not limited to documents relating to representation before a patent examining authority, patent terms and other patent prosecution procedures, both in the United States and other countries, upon such terms and conditions as the General Counsel of the Company shall deem necessary or appropriate.

<b>REVOCATION OF PRIOR POWER OF ATTORNEY AND APPOINTMENT OF NEW ATTORNEY</b>	Application Number	09/797,635
	Filing Date	March 1, 2001
	First Named Inventor	John T. Moore
	Title	METHODS OF METAL DOPING A CHALCOGENIDE, etc.
	Group Art Unit	N/A
	Examiner Name	Not Yet Assigned
Attorney Docket No.		M4065.O697/P697

I hereby revoke all powers of attorney previously granted and hereby appoint:

☒ Practitioners at Customer Number  **Customer Number** → **\*24998\***  
**24998**  
**Customer Number Bar Code**

☐ Practitioner(s) named below:

Name	Registration Number	Name	Registration Number
Gary M. Hoffman	26,411	Eric Oliver	35,307
Thomas J. D'Amico	28,371	Laurence E. Fisher	37,131
Donald A. Gregory	28,954	Ian R. Blum	42,336
James W. Brady, Jr.	32,115	Gabriela I. Coman	50,515
Jon D. Grossman	32,699	Catherine A. Ferguson	40,877
Mark J. Thronson	33,082	Ryan H. Flax	48,141

As my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☒ The above-mentioned Customer Number.  
**OR**  
☐ Practitioners at Customer Number  **Customer Number** →   
**Customer Number Bar Code**

☒ Firm or Individual Name Thomas J. D'Amico  
**DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP**

Address 2101 L Street NW

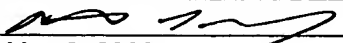
City	Washington	State	DC	Zip	20037-1526
Country	US	Telephone	(202) 785-9700	Fax	(202) 887-0689

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

**SIGNATURE of Applicant or Assignee of Record**

Name	Michael L. Lynch, Chief Patent Counsel
Signature	
Date	May 2, 2003

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required. See below.

☐ \*Total of 1 forms are submitted.

<b>REVOCATION OF PRIOR POWER OF ATTORNEY AND APPOINTMENT OF NEW ATTORNEY (Supplemental Sheet)</b>		Attorney Docket No.	M4065.O697/P697																																												
<table border="1"> <thead> <tr> <th>Name</th> <th>Registration Number</th> </tr> </thead> <tbody> <tr><td>Richard LaCava</td><td>41,135</td></tr> <tr><td>John C. Luce</td><td>34,378</td></tr> <tr><td>Peter McGee</td><td>35,947</td></tr> <tr><td>Edward A. Meilman</td><td>24,735</td></tr> <tr><td>Edwin Oh</td><td>45,319</td></tr> <tr><td>William E. Powell, III</td><td>39,803</td></tr> <tr><td>Steven S. Rubin</td><td>43,063</td></tr> <tr><td>Michael J. Scheer</td><td>34,425</td></tr> <tr><td>Stephen A. Soffen</td><td>31,063</td></tr> <tr><td>Christopher M. Tanner</td><td>41,518</td></tr> <tr><td>Ellen S. Tao</td><td>43,383</td></tr> <tr><td>Gary L. Veron</td><td>39,057</td></tr> <tr><td>Steven I. Weisburd</td><td>27,409</td></tr> <tr><td>Mialeeka C. Williams-Bibbs</td><td>48,037</td></tr> <tr><td>Peter Zura</td><td>48,196</td></tr> <tr><td>Jeremy A. Cubert</td><td>40,399</td></tr> <tr><td>Gianni Minutoli</td><td>41,198</td></tr> <tr><td>Michael Bergman</td><td>42,318</td></tr> <tr><td>Salvatore P. Tamburo</td><td>45,153</td></tr> <tr><td>Peter A. Veytsman</td><td>45,920</td></tr> <tr><td>Christopher S. Chow</td><td>46,493</td></tr> </tbody> </table>	Name	Registration Number	Richard LaCava	41,135	John C. Luce	34,378	Peter McGee	35,947	Edward A. Meilman	24,735	Edwin Oh	45,319	William E. Powell, III	39,803	Steven S. Rubin	43,063	Michael J. Scheer	34,425	Stephen A. Soffen	31,063	Christopher M. Tanner	41,518	Ellen S. Tao	43,383	Gary L. Veron	39,057	Steven I. Weisburd	27,409	Mialeeka C. Williams-Bibbs	48,037	Peter Zura	48,196	Jeremy A. Cubert	40,399	Gianni Minutoli	41,198	Michael Bergman	42,318	Salvatore P. Tamburo	45,153	Peter A. Veytsman	45,920	Christopher S. Chow	46,493	<table border="1"> <thead> <tr> <th>Name</th> <th>Registration Number</th> </tr> </thead> <tbody> </tbody> </table>	Name	Registration Number
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**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: John T. Moore

Application No./Patent No.: 09/797,635

Filed/Issue Date: March 1, 2001

Entitled: METHODS OF METAL DOPING A CHALCOGENIDE MATERIAL

Micron Technology, Inc.

(Name of Assignee)

, a

Corporation

Type of Assignee, e.g., corporation, partnership, university, government agency, etc.

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 011587 ,  
Frame 0237 , or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_ , Frame \_\_\_\_\_ , or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☒ Copies of assignments or other documents in the chain of title are attached.  
**[NOTE:** A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

5-17-03  
Date

Michael L. Lynch  
Typed or printed name



Signature

Chief Patent Counsel  
Title

**ASSIGNMENT****PARTIES TO THE ASSIGNMENT:****INVENTORS:**

John T. Moore  
Terry L. Gilton

**ASSIGNEE:**

Micron Technology, Inc.  
Corporation of the State of Delaware  
8000 South Federal Way  
Boise, Idaho 83716

**BACKGROUND OF THIS ASSIGNMENT:**

INVENTORS have conceived certain new and useful inventions disclosed in a United States patent application titled "Method of Forming a Non-Volatile Resistance Variable Device, and Non-Volatile Resistance Variable Device".

MICRON TECHNOLOGY, INC. (hereinafter referred to as "ASSIGNEE") desires to acquire the entire right, title and interest in said inventions and with respect to any Letters Patent that may be granted with respect to the inventions in both the United States and in all foreign countries.

**THE PARTIES AGREE AS FOLLOWS:**

In consideration of good and valuable consideration, the receipt sufficiency and adequacy of which is hereby acknowledged, INVENTORS hereby sell, assign and transfer to ASSIGNEE the entire right, title and interest in the above-identified application executed currently with this assignment and to any reissues, renewals, divisions or continuations thereof,

and hereby authorizes the Commissioner of Patents and Trademarks to issue such Letters Patent to ASSIGNEE for the sole use of ASSIGNEE, its successors or assigns.

INVENTORS further agree to execute, at the request and expense of ASSIGNEE such other formal documents as may be required to fully convey the interest transferred herein and will similarly execute any application papers required for the filing of any division, continuation, renewal or reissue of the patent application or resulting Letters Patent; and will generally do everything necessary or desirable to obtain and enforce proper protection for the inventions assigned hereby.


INVENTORS further assign to ASSIGNEE the whole right, title and interest in the inventions disclosed in the application throughout all countries foreign to the United States. ASSIGNEE is hereby authorized to apply for patents relating to the inventions in its own name in countries where such procedure is proper; to claim the benefit of the International Convention; to file and prosecute International Applications relating to the inventions under the Patent Cooperation Treaty; and to file and prosecute applications relating to the inventions under the European Patent Convention. INVENTORS agree to execute applications relating to the inventions in those countries and under those conventions where it is necessary that the same be executed by the inventor, and to execute assignments of such applications and the resulting

Letters Patent to ASSIGNEE as well as all other necessary papers in relation to such applications and Letters Patent.

INVENTORS further warrant and covenant that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full rights to convey the same as herein expressed is possessed by the undersigned.

To be binding on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignees.

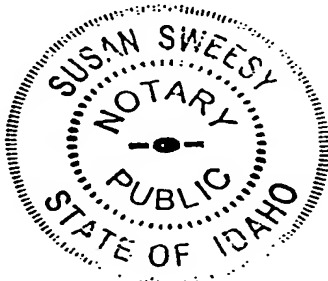
Dated: 2-16-01

By:   
John T. Moore

State of Idaho )  
County of Ada ) ss.

BEFORE ME, this 16 day of Feb, 2001 personally appeared the above-named inventor, known to me to be the person who is described in and who executed the foregoing assignment instrument and acknowledged to me that he/she executed the same of his/her own free will for the purpose therein expressed.

SEAL



  
Notary or Consular Officer  
My Commission Expires: 12.7.06

Dated: 2.16.01

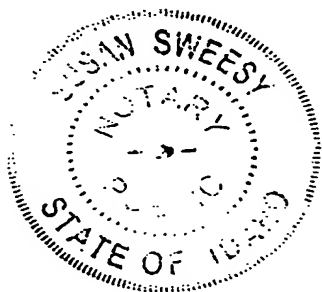
By: 

Terry L. Gilton

State of Idaho )  
County of Ada ) ss.

BEFORE ME, this 16 day of Feb, 2001  
personally appeared the above-named inventor, known to me to be the person  
who is described in and who executed the foregoing assignment instrument  
and acknowledged to me that he/she executed the same of his/her own free  
will for the purpose therein expressed.

SEAL



  
Notary or Consular Officer  
My Commission Expires: 12.7.06